

OWNER'S GUIDE

AMERICAN
M A D E

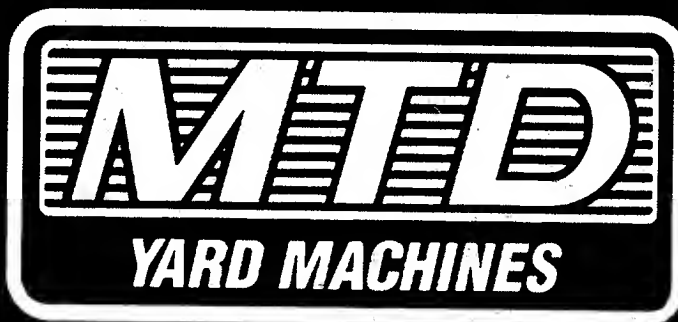


AMERICAN
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Important: Read Safety Rules and Instructions Carefully

19"
ELECTRIC
ROTARY MOWER

Model
427

MTD PRODUCTS INC • P.O. BOX 368022 • CLEVELAND, OHIO 44136-9722

PRINTED IN U.S.A.

FORM NO. 770-8562J

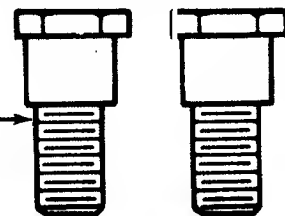
CONTENTS OF HARDWARE PACK/PARTS IDENTIFICATION

Lay out the hardware according to the illustration for identification purposes. Hardware pack may contain extra items which are not used on your unit.—Part numbers are shown in parentheses.

A

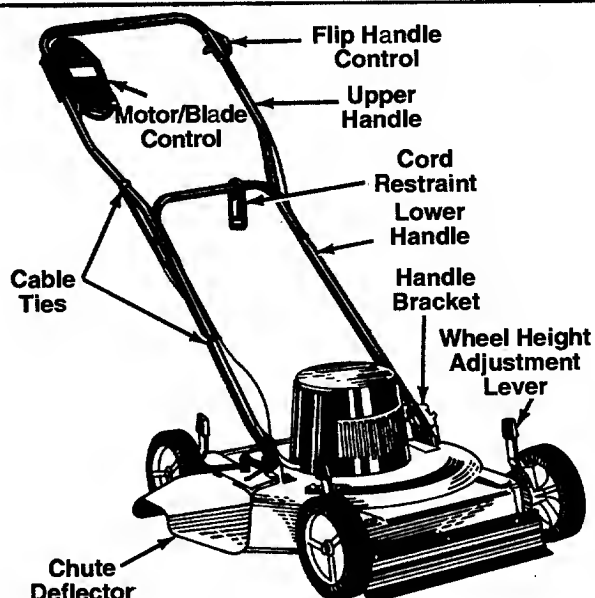
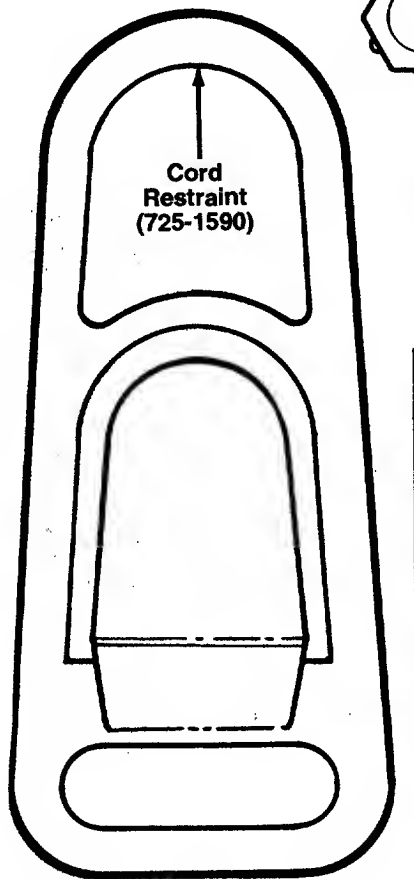
ATTACHING THE LOWER HANDLE

Shoulder Bolts
(738-0859)



Hex Nuts
3/8-16 Thread
(With Washers)
(712-0438)

Cord
Restraint
(725-1590)

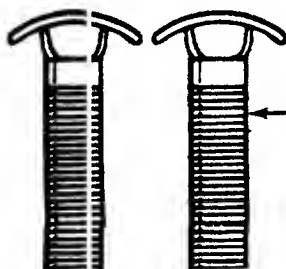


PARTS IDENTIFICATION

B

ATTACHING THE UPPER HANDLE

Curved
Head
Bolts
(710-0671)



Hex Nuts
5/16-18 Thread
(With Washers)
(712-0437)



Flat
Washer 1/4" I.D.
(736-0142)

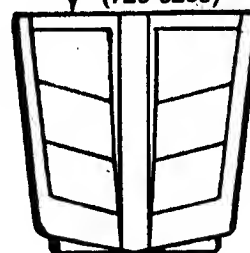
Acorn Nut
(712-0442)



C

FINAL ASSEMBLY

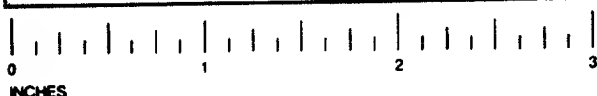
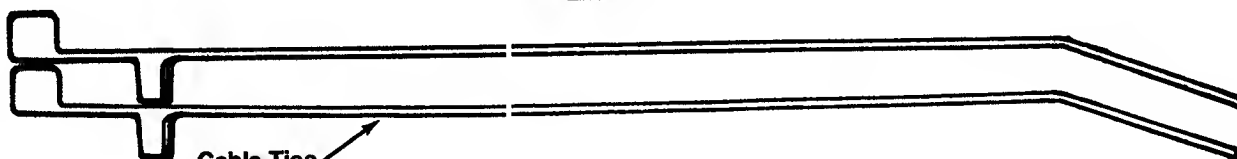
Plastic Knobs (Qty. 4)
(720-0239)



Hex Bolt
1/4-20 x 1-1/2" Long
(710-0606)




Cable Ties
(726-0240)



IMPORTANT

SAFE OPERATION PRACTICES



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR ELECTRIC LAWN MOWER. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL—  **HEED ITS WARNING.**



DANGER:

Your electric lawn mower was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.

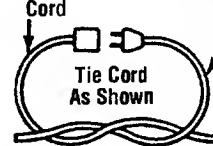


TRAINING

1. Read this owner's manual carefully in its entirety before attempting to assemble or operate this machine. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Your rotary mower is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times.
3. Never allow children to operate a power mower. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
4. No one should operate this unit while intoxicated or while taking medication that impairs the senses or reactions.
5. Keep the area of operation clear of all persons, particularly small children and pets. Stop motor when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, an object may have been overlooked and could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area.

Extension Cord

Appliance Cord



11. Fuses—The mower should be operated on a 15 or 20 AMP circuit. If difficulty in starting is experienced with a standard 15 AMP fuse or circuit breaker, contact your nearest authorized service location. Do not use a higher rated fuse without consulting your power company.
12. For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.

OPERATION

1. Avoid accidental starting. Do not pull plugged-in lawn mower with finger on switch. Be sure switch is off when plugging in.
2. Do not abuse cord—never pull lawn mower by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
3. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times as the rotating blade can cause injury.
4. Stop the motor when you leave the mower and before crossing gravel drives, walks or roads.
5. After striking a foreign object, shut off the motor, make absolutely sure the blade and all moving parts have completely stopped, disconnect the power cord to prevent accidental starting, then thoroughly inspect the mower for any damage. Such damage must be repaired before restarting and operating the mower.
6. If the equipment should start to vibrate abnormally, stop the motor and check immediately for the cause. Vibration is generally a warning of trouble.
7. Stop the motor, unplug the power cord, and wait for the blade and all moving parts to stop before cleaning or unclogging, repairing or inspecting the mower. The cutting blade continues to rotate for a few seconds after the motor is shut off.
8. Do not force lawn mower. It will do the job better and safer at the rate for which it was designed. Use right appliance—Do not use lawn mower for any job except that for which it is intended.
9. Mow across the face of slopes, never up-and-down. Never cut grass by pulling mower toward you. Exercise extreme caution when operating mower on uneven terrain or changing direction on slopes. Do not mow excessively steep slopes. Always be sure of your footing. A slip and fall can cause serious personal injury.
10. Never operate mower without proper guards, plates or other safety protective devices in place.
11. **The blade/motor control on this mower is installed to minimize the risk of blade contact injury and is required by federal regulations. Do not under any circumstances attempt to defeat the function of the blade/motor control.**
12. To avoid electric shock hazard, never push mower over cord. Do not mow around the lawn in circles. Always travel back and forth across the lawn, beginning at the point nearest the electric outlet to which the extension cord is connected. This will keep the cord on the mowed area of the lawn and out of the way.
13. Do not operate mower after it has been dropped or damaged in any manner. Return mower to nearest authorized service location.



PREPARATION

1. Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones and other foreign objects which could be picked up and thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area.
2. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair, to protect eyes from foreign objects that may be thrown from the machine in any direction.
3. Dress properly. Wear sturdy, rough-soled work shoes. Never operate a unit in barefeet, sandals or sneakers. Do not wear loose clothing or jewelry. They can be caught in moving parts. Use of rubber gloves and footwear is recommended when working outdoors.
4. Never attempt to make a wheel or cutting height adjustment while the motor is running.
5. Mow only in daylight or in good artificial light.
6. Avoid Dangerous Environment—Never operate the equipment in the rain or in damp wet locations. Always be sure of your footing. A slip and fall can cause serious personal injury. Keep a firm hold on the handle and walk, never run. Do not over-reach—keep footing and balance at all times.
7. Warning—To reduce the risk of electric shock hazard, use only with an extension cord suitable for outdoor use. Use only UL approved outdoor extension cords of adequate gauge (minimum 16 gauge recommended) which accept the lawn mower's plug. Extension cords are available at your nearest authorized service center or dealer.
8. Cord sets—Make sure your cord set is in good condition. Use only a 100 foot 14 gauge UL approved outdoor power extension cord (part no. 629-0192 or equivalent). A 50 foot 16 gauge UL approved outdoor extension cord is an acceptable substitute. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.
9. If extension cord is damaged in any manner while plugged in, disconnect extension cord from wall receptacle.
10. To prevent disconnection of extension cord from mower during operation, be sure to use the cord restraint provided or make a knot as shown in the illustration in next column.

SAFE OPERATION PRACTICES (Continued)

14. The use of accessory attachments not recommended by the mower manufacturer may cause hazards.



MAINTENANCE AND STORAGE

1. Warning—Disconnect power cord from electrical outlet before performing any maintenance or service on mower.
2. Check the blade and motor mounting bolts at frequent intervals for proper tightness. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
3. Keep blade sharp.
4. Use identical replacement blades only. Replace damaged corc.
5. To reduce fire hazard, keep the motor free of grass, leaves, or excessive grease.
6. Store idle lawn mower indoors when not in use. Allow motor to cool before storing in any enclosure. Lawn mower should be stored indoors in dry, high or locked-up place, out of reach of children.
7. Maintain lawn mower with care. Keep blade sharp and clear for best and safest performance. **Follow instructions for lubricating and changing accessories.**

8. Check the grass catcher bag frequently for wear or deterioration. Replace a worn or damaged bag immediately. Be sure replacement bag meets original equipment specifications.



DOUBLE INSULATED LAWN MOWER

DOUBLE INSULATION IS A CONCEPT IN SAFETY IN ELECTRIC LAWN MOWERS, WHICH ELIMINATES THE NEED FOR THE USUAL THREE WIRE GROUNDED POWER CORD AND GROUNDED SUPPLY SYSTEM. WHEREVER THERE IS ELECTRIC CURRENT IN THE MOWER, THERE ARE TWO COMPLETE SETS OF INSULATION TO PROTECT THE USER. ALL EXPOSED METAL PARTS ARE ISOLATED FROM THE INTERNAL METAL MOTOR COMPONENTS WITH PROTECTING INSULATION.

IMPORTANT—SERVICING OF A LAWN MOWER WITH DOUBLE INSULATION REQUIRES EXTREME CARE AND KNOWLEDGE OF THE SYSTEM AND SHOULD BE PERFORMED ONLY BY A QUALIFIED SERVICE TECHNICIAN. FOR SERVICE WE SUGGEST YOU RETURN THE LAWN MOWER TO YOUR NEAREST AUTHORIZED SERVICE DEALER FOR REPAIR. ALWAYS USE ORIGINAL FACTORY REPLACEMENT PARTS WHEN SERVICING.

ASSEMBLY INSTRUCTIONS

NOTE: The right hand side of the mower is the side which has the chute deflector. Refer to illustration on page 2.

Tools Required for Assembly

- (2) 9/16" Wrenches*
- (2) 1/2" Wrenches*
- (1) 7/16" Wrench*
- (1) Soft Hammer or Mallet
- *or two 6" Adjustable Wrenches

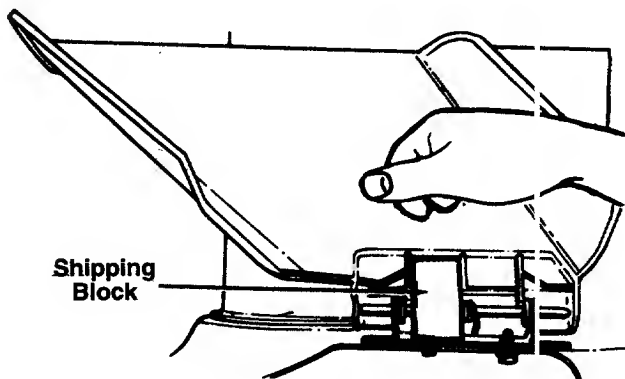


FIGURE 1.

UNPACKING

1. Remove the lawn mower from the carton by opening the top flaps and lifting the unit out. Be careful of the staples. Make certain all parts and literature have been removed from the carton before the carton is discarded.
2. Check beneath the deck for any cardboard packaging. Remove if present.
3. Stretch out control cables and place on the floor. Be careful not to bend or kink the cables at any time during assembly.
4. Refer to page two to identify the contents of the hardware pack.

PREPARATION

The chute deflector on your mower is held in an upright position by a "V" block for shipping purposes only. This "V" block must be removed and discarded before the mower is assembled and operated. See figure 1.

To remove the "V" block, pull the spring-loaded chute toward the engine. Remove the "V" block and carefully lower the chute into operating position, keeping fingers out of the way.

Right Side
(Chute Side)

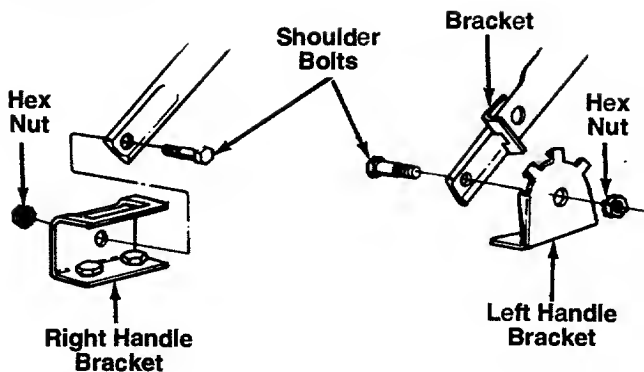


FIGURE 2.

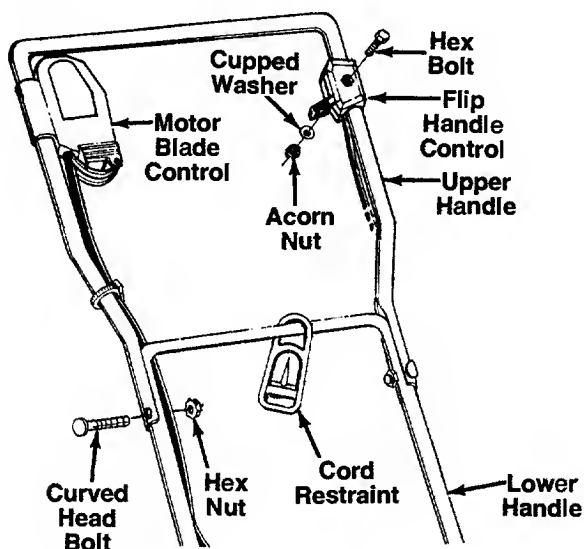


FIGURE 3.

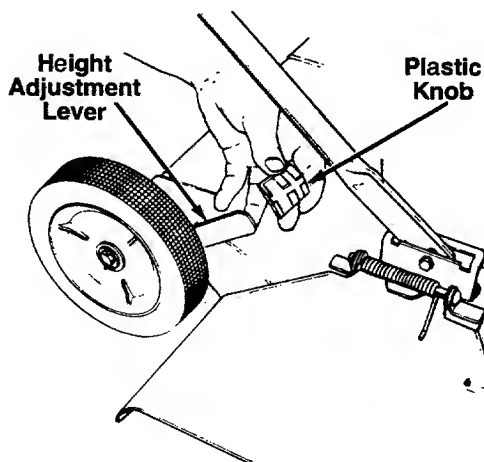


FIGURE 4.

ATTACHING THE LOWER HANDLE (Hardware A)

The left leg of the lower handle is the leg which has a bracket attached. Attach the lower handle as follows. See figure

← 2.

1. Place the cord restraint onto the lower handle as shown in figure 3.
2. Insert the right leg of the lower handle (leg without a bracket attached) into the slot in right hand handle bracket. Place the left leg inside of the left handle bracket.
3. Insert one shoulder bolt through the right handle and handle bracket. Start hex nut on shoulder bolt (washer on the hex nut goes against the handle bracket) before pushing shoulder bolt all the way through the handle and bracket.
4. Secure the left leg of the lower handle to the left handle bracket with the other shoulder bolt and hex nut. It may be necessary to push down on the handle to align the holes in the lower handle and handle bracket. Tighten both nuts and bolts securely.

ATTACHING THE UPPER HANDLE (Hardware B)

←

1. With the cord restraint on top of the lower handle as shown in figure 3, place the upper handle in position over the lower handle. The motor/blade control must be on the right side (chute side) of mower. Secure the upper handle using curved head bolts and hex nuts. The head of the bolts should be to the outside of the handle. Washer on hex nut goes against the handle. Tighten securely.
2. Secure the control cord to the upper and lower handles using the cable ties provided. Trim excess ends of cable ties.
3. Place the flip handle control in position on the left side of upper handle. Secure with hex bolt, flat washer and acorn nut.

FINAL ASSEMBLY (Hardware C)

←

1. Assemble the plastic knobs to the wheel height adjustment levers by pressing on or tapping lightly with a soft hammer. See figure 4.
2. Make certain all nuts and bolts are tightened securely.

OPERATION



FIGURE 5.

Keep hands and feet away from the mowing deck. See figure 5.

NOTE: The wheels on your unit are set in a low cutting height position for shipping purposes. For best results, raise the cutting position until it is determined which height is best for your lawn. See cutting height adjustment.

CONTROLS

Motor/Blade Control



WARNING: This control mechanism is a safety device. Never attempt to bypass its operations.

The motor/blade control is located on the upper handle of the mower. See figure 7. The motor/blade control handle engages and disengages the motor and blade.

Flip-Over Handle Control

The flip-over handle allows you to reverse the mowing direction without turning the mower around. Make certain handle is locked in the desired operating position before mowing. See figure 6.

To reverse mowing direction, pull the flip handle control lever up, swing the handle over and release the flip handle control lever. The slide lock bracket will lock the handle in place.



WARNING: Make certain the slide lock bracket is disengaged before swinging the handle over.

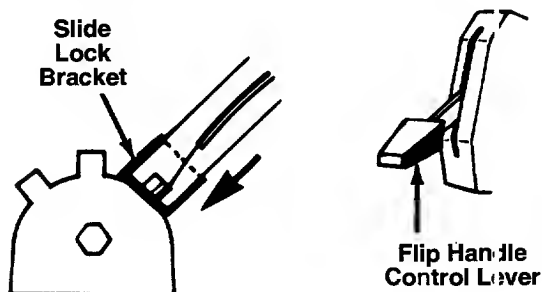


FIGURE 6.

CORD CONNECTION



WARNING: Use only a 100 foot 14 gauge UL approved outdoor power extension cord (part no. 629-0192 or equivalent). A 50 foot 16 gauge UL approved outdoor extension cord is an acceptable substitute. Using any other length or rating of cord will diminish the performance and possibly the life of the electric motor.

Cord Restraint

Attach extension cord (not provided with unit) to the cord restraint as follows. Form a small loop in the extension cord. Allow enough excess cord to make the connection to the motor/blade control (approximately 20 inches). Slip the loop through the slot on the bottom of the cord restraint, and up over the tab, to prevent disconnection from the motor/blade control during operation. Keep the cord restraint as close to the motor/blade control as possible. See figure 7.

Connection to the Motor/Blade Control

To attach extension cord to the mower, swing open the spring-loaded plug retainer located beneath the motor/blade control. Connect the plug on the extension cord fully onto the plug on the mower. The mower is equipped with a polarized AC power plug (one blade of the plug is wider than the other), which will fit into the plug on the extension cord only one way. See figure 7, inset. If unable to make a full connection, try reversing the plug on the extension cord. Should the plugs still fail to fit, contact your service dealer for assistance. Do not defeat the safety purpose of the polarized plug.

Connection to the Electric Power Source

Plug the extension cord into any convenient 110-120 volt 60 cycle A.C. outlet or receptacle for your source of power. This outlet may be located either out-of-doors or indoors. If an inside receptacle is used, the extension cord can be taken out either through the doorway or a window. To avoid blowing fuses, pick an outlet that is not overloaded. Your mower will operate satisfactorily on a circuit that is fused for 15 amperes. Do not use oversize fuses without consulting your power company.

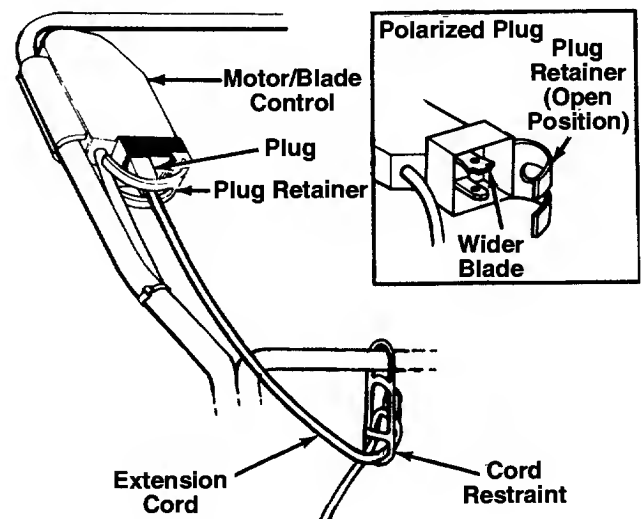


FIGURE 7.

TO START MOTOR AND ENGAGE BLADE

Standing behind the unit, lift the motor/blade control handle with the left forefinger, then pull handle up and hold it against the upper handle with right hand. See figure 8.

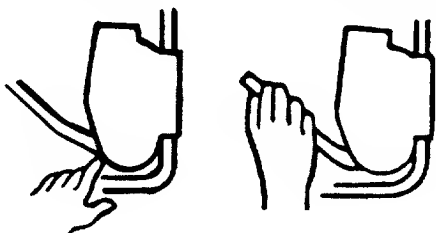


FIGURE 8.

TO STOP MOTOR AND BLADE

1. Release the motor/blade control handle to stop the engine and blade. (A high pitched noise will result, which is the result of deceleration of the electric motor. Sparking at the top of motor is also normal during deceleration.)



WARNING: The blade continues to rotate for a few seconds after the motor is shut off. If motor does not come to an immediate stop when the motor/blade control handle is released, contact an authorized service center.

2. Disconnect the power source to prevent accidental starting while equipment is unattended.

USING YOUR ROTARY MOWER

Be sure that lawn is clear of stones, sticks, wires, or other objects which could damage lawn mower or engine. Such objects could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.

To prevent electric shock, do not operate the mower in damp or wet locations.

Never mow around the lawn in circles. Always travel back and forth across the lawn, beginning at the point nearest the electric outlet where cord is connected. See figure 9. Cut grass moving away from the outlet so the cord lies in the cut portion of the lawn, out of the way. Clippings should be discharged on the cut portion of the lawn.

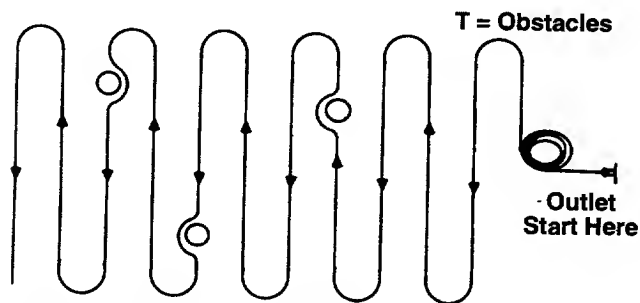


FIGURE 9.—Mowing Procedure

Do not allow extension cord to wrap around trees, shrubs or other obstacles. When picking up the extension cord, wind the cord in a series of equal loops on each side of your hand to prevent snarling. See illustration at right.



To cut heavy grass, reduce walking speed to allow more effective cut and distribution of the clippings. For best results, cut off one-third or less of the total length of the grass. The average lawn should be approximately 1-1/2 to 2 inches during the cool season, and over 2 inches during hot months. For a healthier and better looking lawn, cut more often and after moderate growth. The lawn should be cut in the fall as long as there is growth.



WARNING: If you strike a foreign object, stop the motor. Disconnect the power source, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower. Extensive vibration of the mower during operation is an indication of damage. The unit should be promptly inspected and repaired.

CUTTING HEIGHT ADJUSTMENT



WARNING: Do not at any time make any adjustment to lawn mower without first stopping motor and disconnecting the power source.

A height adjustment lever at each wheel provides cutting height adjustment. Each adjuster has nine height positions, ranging from 1-1/2" to 3-3/8". Height of cut will be changed when the lever is moved from one position to another. Simply depress the lever towards wheel and move wheel and lever assembly to desired position. See figure 10.

For rough or uneven lawns, move the wheels to a position which will give a higher cutting height.

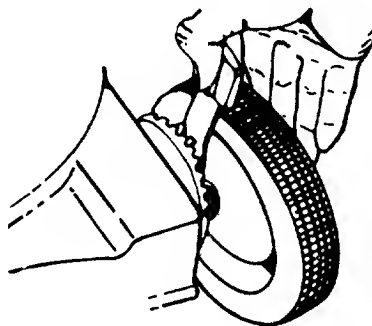


FIGURE 10.

MAINTENANCE



WARNING: Always stop engine and disconnect the power source before cleaning, lubricating or performing any repairs or maintenance on lawn mower.

LUBRICATION

Chute Deflector—The torsion spring and pivot point should be lubricated periodically with light oil to prevent any rust or binding. Deflector must work freely.

Wheels—Wheels require no lubrication. However, if the wheels are removed for any reason, lubricate the surface of the axle and the inner surface of the wheel with light oil. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

CUTTING BLADE



WARNING: Always protect hands by wearing heavy gloves and/or wrapping cutting edges with newspapers or other materials when performing any blade maintenance. Be certain to disconnect the power supply.

Remove the bolt and bell washer which hold the blade and adapter to the motor shaft. Remove the blade and adapter from the shaft. If the blade or blade adapter needs replacing, remove the two small bolts, lock washers and nuts which hold the blade to the adapter.



WARNING: Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary.

When sharpening the blade, follow the original angle of grind as a guide. It is **extremely important** that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds, may cause damage to the mower and could break, causing personal injury.

It is recommended that the blade always be removed from the adapter for the best test of balance.

The blade can be tested by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly.

Before reassembling the blade and the blade adapter to the unit, lubricate the motor shaft and the inner surface of the blade adapter with light oil. Lubricating the bolt holes, bolts and inner surface of the nuts with light oil is also recommended. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

When replacing the blade, be sure to install the blade with the side of the blade marked "Bottom" (or with part number) facing the ground when the mower is in the operating position.

Blade Mounting Torque

All blade bolts: 450 in. lbs. min., 600 in. lbs. max.

To insure safe operation of your unit, **all** nuts and bolts must be checked periodically for correct tightness.

DECK

Remove any buildup of grass and leaves on or around the motor cover (do not use water). Wipe mower clean with a dry cloth occasionally.

The underside of mower deck should be cleaned after each use as grass clippings, leaves, dirt and other matter will accumulate. This accumulation of grass clippings, etc., is undesirable as it will promote rust and corrosion.

Disconnect the power source. Tilt the mower forward or on its side and scrape clean with a suitable tool.



WARNING: To reduce the risk of electric shock, do not expose to water.

STORAGE

1. Make certain motor/blade control switch is in OFF position and power supply is disconnected.
2. Clean mower as instructed in previous section.
3. Wipe extension cord to remove any foreign substance such as oil or stains. Replace extension cord if cut or damaged in any way.
4. Wind cord as shown on page 7.
5. Store mower indoors, in a cool, dry place, out of reach of children. Do not cover lawn mower with a solid plastic sheet. Trapping moisture around the mower will promote rust and corrosion.

NOTE: The use of any accessory on this Rotary Mower other than those shown in this manual is **not** recommended. GRASS CATCHER Model 190-110 is available as optional equipment for the mower shown in this manual. When using optional grass catcher, use of the lowest cutting height positions is not recommended as the catcher frame may contact the ground.

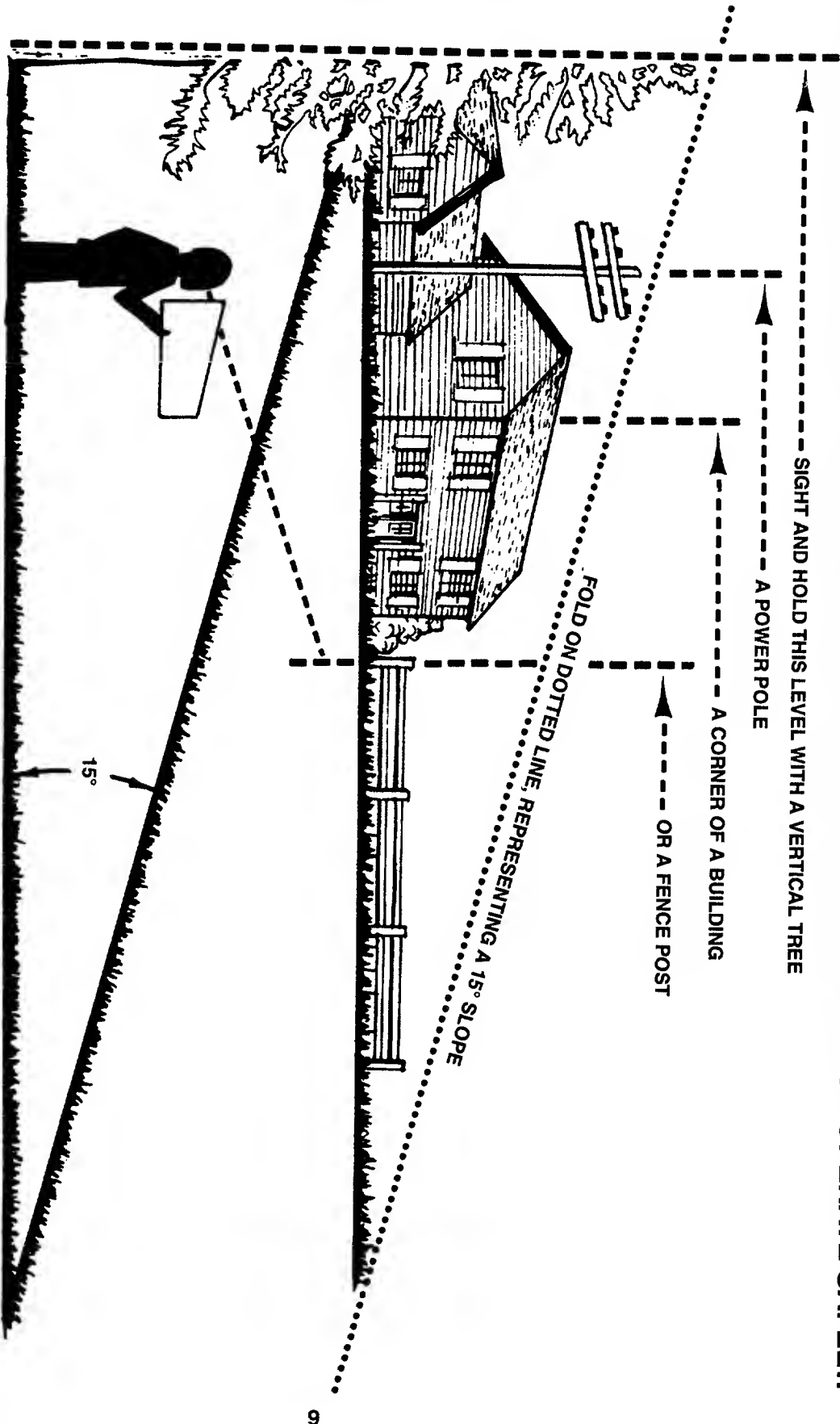


WARNING: DO NOT operate the mower without the entire grass catcher or chute deflector in place. DO NOT operate the mower without the protective shields on the front and rear of the deck in place.

NOTE: Under normal usage bag material is subject to wear and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations. For replacement bags, use only factory authorized replacement bag.

SLOPE GAUGE

USE THIS PAGE AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.



Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2-1/2 feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

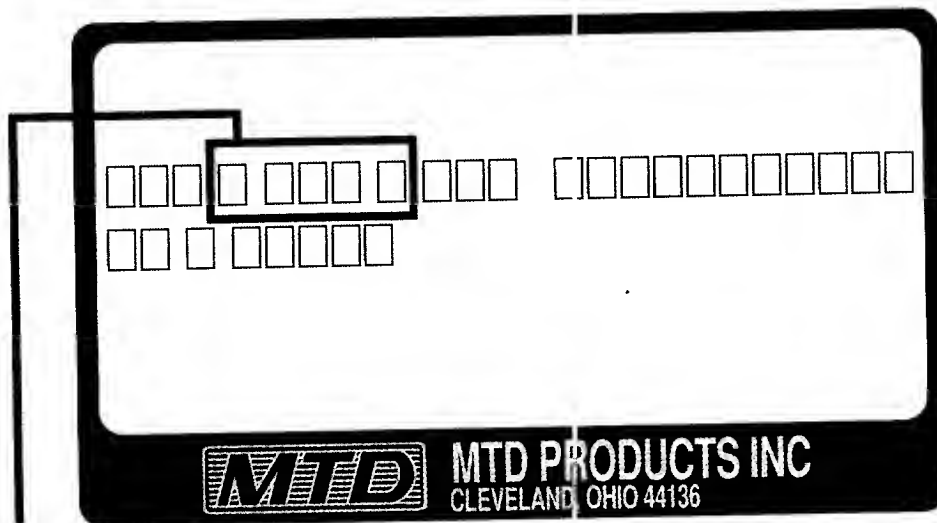
Operate RIDING mowers up and down slopes, never across the face of slopes.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

**Copy the information from
your model plate here:**

**Please help us
help you!**

**Have your
model number
available
when you call**



The diagram shows a rectangular model plate. At the bottom left is the MTD logo. To its right is the text "MTD PRODUCTS INC" and "CLEVELAND, OHIO 44136". Above this, there are two rows of boxes for recording information. The top row has 18 boxes, and the bottom row has 10 boxes. A rectangular box highlights the first six boxes of the top row.

Model No.	-427
Extension Cord	629-0192
Cord Restraint	725-1590
Cord & Switch Ass'y Comp.	624-0032
Blade 19"	742-0519
Blade Adapter	748-0356
Grass Catcher (Optional)	190-110-000

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MC

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9:00 AM to 8:00 PM Saturday

Eastern Time (winter hours may vary)

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